

Amendments to the Claims

1. (currently amended) A method for managing a request for an assignment of at least one uplink dedicated data channel in a network comprising a base station including a radio resource and access manager and a plurality of subscriber stations, where said base station can assign a dedicated data channel from a pool of unassigned dedicated data channels and can allocate a portion of radio resources to assign data rate capacity to an assigned channel, comprising:

a) receiving at said base station a request for a dedicated data channel from one subscriber station of said plurality of subscriber stations;

b) said radio resource and access manager determining if sufficient radio resources are available for providing said requested data channel and if a dedicated data channel is available for assignment from said pool of unassigned dedicated data channels, then

i) if said resources and said dedicated data channel are available, advancing to step (e);

ii) if said necessary resources are not available advancing to step (d);

iii) if said resources are available but said dedicated data channel is not available advancing to step (c);

c) determining whether at least one other subscriber station from said plurality of subscriber stations with an assigned dedicated data channel is eligible to have its said assigned dedicated data channel returned to said pool of unassigned dedicated data channels, then

iv) if at least one other subscriber station is eligible to have its said assigned dedicated data channel returned, returning said assigned dedicated data channel to said pool of unassigned dedicated data channels; then advancing to step (e); or

v) otherwise terminating the method;

d) determining whether at least one other subscriber station with an assigned dedicated channel with a first data rate capacity can be reduced to a lower data rate capacity to make radio resources available and reducing said first data rate capacity to free said associated radio

resources available, then

- vi) returning to step (b) if such ~~a-at-least~~ said at least one subscriber station exists;
- vii) terminating the method if such ~~a-at-least~~ said at least one subscriber station does not exist; and
- e) assigning said dedicated data channel from said pool of unassigned dedicated data channels to said one subscriber station.

2. (original) The method of claim 1, where said at least one other subscriber station in step (c) is eligible only if it has no reserved uplink resources.

3. (original) The method of claim 2, where said at least one other subscriber station in step (c) is eligible only if it has a data rate as least as low as any other subscriber station with no reserved uplink resources.

4. (original) The method of claim 3, where said at least one other subscriber station in step (c) is eligible only if it has been at said data rate for at least as long any other subscriber station with no reserved uplink resources.

5. (original) The method of claim 4, where said at least one other subscriber station in step (c) is eligible only if it has been at said data rate for at least a pre-selected minimum holding time.

6. (original) A method for managing the allocation of uplink resources in a network comprising a base station and a plurality of subscriber stations, each of said plurality of subscriber stations being independently allocated uplink resources to provide current data rate from a set of possible data rates, said method comprising:

- a) receiving a message at said base station from one subscriber station of said plurality of subscriber stations, and

- i) if said message indicates one of high amount of traffic waiting to be sent and

low amount of traffic waiting to be sent, determining a desired data rate from said set of possible data rates for said one subscriber station, where said desired data rate is a different data rate than said current data rate;

ii) otherwise ignoring said message and terminating the method;

b) determining whether sufficient uplink resources are available to grant said desired data rate to said one subscriber station, then

iii) if sufficient uplink resources are available, advancing to step (e)

iv) if sufficient network are not available, advancing to step (c);

c) determining whether at least one other subscriber station from said plurality of subscriber stations is eligible for a lower data rate, said at least one other subscriber station being eligible for a lower data rate if said current data rate for said at least one other subscriber station is greater than a minimum data rate allocated to said at least one subscriber station, then

v) if at least one other subscriber station is eligible for said lower data rate, advancing to step (d);

vi) otherwise, ignoring said message and terminating the method;

d) determining which particular subscriber station from said at least one other subscriber stations eligible for said lower data rate will be subjected to said rate reduction and moving said particular subscriber station to said lower data rate, and then returning to step (b); and

e) moving said one subscriber station to said desired data rate from said current data rate for said one subscriber station.

7. (currently amended) The method of claim 6, where said at least one other subscriber station in step (c) is eligible only if it has been at said data rate for at least ~~(as)~~ [a]] pre-selected minimum holding time.

8. (original) The method of claim 6, where said desired data rate is a data rate from said set of data rates and is one of one step higher and one step lower than said current data rate in said set of data rates.

9. (currently amended) The method of ~~claims 6-8~~ claim 6, where said minimum data rate is ~~said sum~~ a sum of any reserved uplink resources on said at least one other subscriber station.

10-13. (canceled)

14. (currently amended) A method for managing uplink load in a network having a predetermined maximum uplink load level, said network comprising a base station and a plurality of subscriber stations, each of said plurality of subscriber stations being independently allocated a current data rate from a set of possible data rates, the method comprising:

- a) determining said total uplink load in said network;
- b) if said load is within a pre-selected range of said maximum uplink load level, determining if an eligible subscriber station exists within said plurality of subscriber stations, said eligible subscriber station being capable of having its data rate reduced from its present data rate to a lower data rate in said set of possible data rates, and reducing said present data rate to said lower data rate and returning to step a);
- c) otherwise, if said load is within a pre-selected range of said maximum uplink load level and no eligible subscriber station exists, determining at least one subscriber station whose present data rate will be reduced to zero and reducing said present rate to zero and returning to step (a).

15. (original) The method of claim 14 where in step (c), said determined subscriber station is selected randomly from said plurality of subscriber stations.

16. (original) The method of claim 15, where said eligible subscriber station in step (a) is one of said plurality of subscriber stations without any reserved uplink resources with a data rate at least as high as any other subscriber station without reserved uplink resources.

17. (original) The method of claim 15 where said lower data rate in step (a) is

one step lower in said set of possible data rates.

18. (original) The method of claim 15, where said eligible subscriber station in step (b) is one of said plurality of subscriber stations without any reserved uplink resources with a data rate at least as high as any other subscriber station without reserved uplink resources.

19-40. (canceled)